Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)
	)
Amendment of Part 97 of the Commission's Rules	) **WT Docket No. 05-235**
To Implement WRC-03 Regulations Applicable to	)
Requirements for Operator Licenses in the	)
Amateur Radio Service	)

To: The Commission

Comments in response to and against Anthony R. Gordon's Petition for Partial Reconsideration

Anthony R. Gordon, individually and in Pro-Per, has requested the Commission reconsider and

modify a portion of the Report and Order, FCC 06-178 pursuant to section 1.429 of the Commission's

rules. In specific, Mr. Gordon requests reinstatement of the Morse code telegraphy examination

requirement for the Amateur Extra Class license, citing "...significant national security implications...".

I argue that Mr. Gordon's petition be dismissed, and in doing so offer the following rebuttals to

Mr. Gordon's arguments:

National Security "Unity of Effort" Requires Keeping the "Core Competency" of Morse Code as
an Examination Element for the Amateur Extra Class Operators License

Mr. Gordon quotes Joint Publication 0-2, Joint Chiefs of Staff, entitled Unified Action Armed

Forces (UNAAF) as follows:

> "The solution to a problem normally will not reside within the capabilities of just one agency.
> Therefore, campaign plans, operation plans (OPLANS)...and operation orders must be created to
> 'leverage the core competencies of all available agencies,', synchronizing and/or/integrating their
> efforts with military capabilities toward a single objective".

In using this quote to buttress his argument, Mr. Gordon chose to emphasize the phrase

"...leverage the core competencies of all available agencies..." but chose to ignore the phrase

"...synchronizing and/or integrating their efforts with military capabilities toward a single objective....".

The primary interface point between the Amateur Service and the armed services is the Military Affiliate

Radio System (MARS). Quoting section 6-1.1 of the MARS Training Manual:

"Reliability, security and speed are the three fundamentals of military communications, with reliability ultimately the most important. Reliability must never be diminished or sacrificed to meet the conflicting demands of security, speed, or convenience. Modern digital communications provide a means of enhancing both the reliability and speed of communications within MARS".

Morse code is not used within MARS because it is inferior with respect to both reliability and speed to modern digital modes. The lack of support for Morse within MARS suggests that it cannot be used effectively to meet the "...synchronizing and/or integrating..." goal of the passage quoted by Mr. Gordon in support of his argument. While a handful of CW emergency nets remain, the simple fact is that voice and digital modes other than CW are preferred on national, regional and local emergency networks and for moving traffic between differing agencies. The argument that manually sent-and-received Morse is a "critical" mode for emergency response is simply not supported by fact.

Mr, Gordon agues that one of the core competencies "...has been the pool of talented Morse code telegraphy operators...". A competency is just that, something at which an individual or group are competent. The Element One exam generally tested only the ability to receive code, not send it, and both are skills which require regular practice to maintain. While there certainly exist people who enjoy working Morse code, to suggest that even a simple majority of those with Element One credit maintain, much less improve, their competency when it comes to sending and receiving Morse code lacks any sort of documentation and flies in the face of empirical evidence. Mr. Gordon's choice of past tense in "...has been.." is an appropriate one; true core competency in Morse passed from the Amateur Service years ago.

Mr. Gordon draws a parallel between the need to manually demonstrate proficiency with Morse code and the requirement to demonstrate proficiency in driving before being issued a license to operate an automobile. This analogy is deeply flawed. CW is an operating mode, and can be duplicated by means other than manipulating a key and listening to tones (computer CW comes immediately to mind); no such analog exists for operating a motor vehicle.

The Morse Code Examination Element for the Amateur Extra Class Operator License should be kept in the Public and National Security Interest as a Hedge against Future Threats in the War Against Terrorism, as well as for Future Emergency Communications Requirements.

Mr, Gordon notes that the "...Commission is clearly obligated to promote Amateur Radio by Congressional Policy..." This is indeed the case, but Mr. Gordon fails to articulate how requiring a one-time demonstration of a minimal level of proficiency with Morse code promotes this goal. On the other hand, later in this document I will advance reasons why doing as Mr. Gordon suggests will actually *interfere* with this goal.

Mr. Gordon draws another tortured parallel between the continued use of armor in the evolving military and Morse code in the evolving Amateur Service. Again this argument is specious; there is no replacement for armor but there are tens of replacements for manually sent-and-received Morse code.

Mr. Gordon asserts that there is "...no way that the Commission can accurately predict the future national security and emergency communications requirements for the Amateur Radio Service and it would not be in the public interest for the Commission to watch one of its 'core competencies' diminish without requiring a basic minimum examination requirement to secure its long range survival as a critical operating mode...: I take issue with these assertions on several levels:

- Mr. Gordon is implicitly asserting that there is a set of events which will leave manually sent-and-received Morse code as a preferred mode. It is meaningless to advance such an argument without considering the set of events which would make this the case. To reach this point would require that other digital emission modes, including computerized CW, be rendered impossible. The only class of event that one can imagine which would render other digital modes in emergency communications nodes inoperative on a wholesale basis would be something like a widespread EMP event which, by its nature, would also render inoperative most commercially produced transceivers manufactured in the past 15 years. To reach a point where SSB or FM voice and digital modes other that manually sent-and-received Morse were unavailable on a widespread basis would require a technological throwback to the beginning to the 20th century. If this is

genuine risk, then the Commission would need to require not only demonstrated proficiency with both sending and receiving Morse code on an ongoing basis (say annually) not only to obtain *but retain* the Extra Class license, it would also have to require demonstrated proficiency at constructing a spark gap transmitter and a crystal received using materials found around the home. To be meaningful in the context of national or civil defense would further require that the military and government agencies which have poor or nonexistent support for Morse be compelled to provide them.

- Mr. Gordon again refers to Morse code as a "core competency" without supplying any evidence for this being the case.

- Mr. Gordon asserts that manually sent-and-received *Morse* code is a "critical operating mode" without providing evidence to support this position and in direct opposition to the fact that the vast majority of local, regional and transcontinental emergency networks (along with MARS) do not even support Morse. Further, if this is indeed a "critical operating mode", then restricting the requirement to Extra Class licensees is a poor choice; logic dictates that we have the largest possible operator pool and therefore if any licensees are to be required to demonstrate manual proficiency with Morse code, *all* licensees should be required to do so.

The Morse Code Examination for the Amateur Extra Class Operator License should be kept as a "Strategic Reserve" in the Public and National Security Interest for Future Emergency Communications Requirements.

Mr. Gordon asserts that there is "...ample evidence of the past success of Morse code telegraphy as a useful and popular means of domestic and international Amateur Radio Communications. No where is this more evident than in the emergency communications aspects of the Amateur Radio Service...". While this was the case prior to the advent of other digital modes, this latter statement is clearly not supported by fact today; local, regional and transcontinental emergency networks all favor other digital modes, facsimile and voice over Morse, and in fact most do not support Morse at all.

Mr. Gordon again advances without evidence to support his argument that some unspecified emergency communications environment will result in manually sent-and-received Morse code as the preferred mode. His use of the problem of limited transponder space observed during Operation Enduring Freedom is specious; that problem revolves around the sheer amount of information being moved in real time and the amount of transponder space available. Notably, the warfighters haven't proposed manually sent-and-received Morse code as a solution to this problem, for obvious reasons. CW has narrow bandwidth, and possessed of such it's inherently incapable of moving significant amounts of data reliably or in short amounts of time.

Conclusion

Mr. Gordon's petition is based on the assertions that manually sent-and-received Morse code is a "critical operating mode", a "core competency" of the Amateur Service and of "critical importance" to emergency communications. Evidence has been submitted rebutting each of these claims. Mr. Gordon further asserts that the Commission must require competency with manually sent-and-received Morse code in the event of some dark day that he hypothesizes but fails to articulate; I have submitted a counterargument to the effect that the sort of collapse of our communications infrastructure needed to make other digital modes and SSB voice difficult or impossible would also render manually sent-and-received Morse equally difficult or impossible. Further, I advance the argument that if the mechanical skills needed to manually send-and-receive Morse are as critical as Mr. Gordon argues, then those skills should not only be demanded of *all* Amateur Service licensees, they should be required to be demonstrated on an *ongoing basis*. I believe such a requirement would be readily recognized at being at odds with the Commission's obligation to promote amateur radio.

Mr. Gordon's petition, when stripped of its dressing, is an emotional argument to maintain an artificial hurdle for admission to a specific class of license. Manually sent-and-received Morse code has the advantage of being able to be transmitted and received using simple equipment but manifold disadvantages compared to other digital modes, especially for emergency communications. Future

emergency communications needs will be better met with new, robust technologies like ALE, ultra-wide band/spread spectrum communications, burst communications and self healing/self organizing networks, not by perpetuating the requirement that someone be able to copy code at five words per minute long enough to pass an exam, only to have those skills immediately atrophy because they are unused and of no interest to the licensee. To this end the Commission needs to attract technically talented individuals into the Amateur Service, not erect pointless barriers for the sake of an emotional attachment to history. I submit that in this regard the Commission acted appropriately in FCC 06-178 in dropping entirely the Element One requirement and that the petition by Anthony Gordon to require a demonstration of Morse Code competency for the Amateur Extra license be denied.

Respectfully submitted,

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